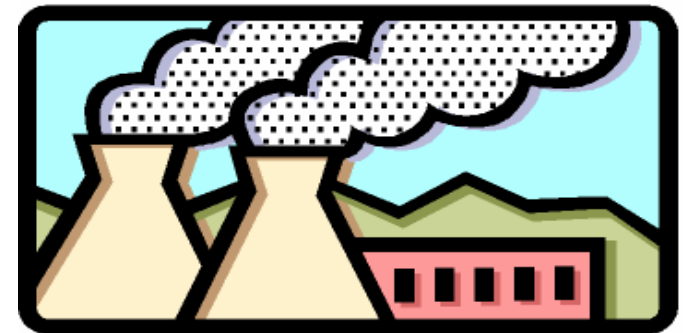


**Talbot County
Citizens Guide
to the
Calvert Cliffs Nuclear Power Plant**

**Does the
Calvert Cliffs
Nuclear Power
Plant affect me?**



**Brought to you by the
Talbot County
Emergency Management Agency**

Public Safety with Pride & Commitment

"Public Safety With Pride and Commitment"

Contact Information

Talbot County Emergency Management Agency
Talbot County Operations Center
605 Port Street
Easton, Maryland 21601
(410) 770-8160
Fax: (410) 770-8163
Email: mullikin@talbgov.org
tmcneal@talbgov.org
chrism@talbgov.org

threat to the person, often resulting in thyroid cancer. If, however, the thyroid is fully saturated with non-radioactive iodine, there is little room for it to take up much radioactive material. Iodized table salt behaves in a similar way.



Early doses of non-radioactive potassium can lead to such saturation of the thyroid and thus prevent much absorption of the radioactive iodine. Pills of this type are stockpiled by Maryland and will be distributed to any threatened population in a timely fashion as a protective measure. Full warning and instructions for pill usage will be issued by Talbot County, in coordination with the State of Maryland.

SUMMARY

While it is unlikely that a serious radiological emergency will occur, it is important for Talbot County to be prepared for such an event. The information provided in this brochure is intended to be informational and is to be used as a guide. Specific instructions will be provided to you via siren activation, cable announcements and crawlers, activation of the Emergency Alert System (EAS) and WCEI, should an emergency occur of this nature.

It is important to again make note of the fact that Talbot County is in the Ingestion Zone in relation to Calvert Cliffs Nuclear Power Plant. Talbot County Emergency Management Agency has a plan in place for coping with a radiation release and is committed to the protection and welfare of Talbot County citizens in the event of any natural or man-made emergency. The Talbot County Emergency Management Agency participates in an exercise schedule with other jurisdictions and the Calvert Cliffs Nuclear Power Plant in order to test our preparedness for this type of emergency.

The Talbot County Emergency Management Agency welcomes your questions and comments on this brochure or other public safety issues which may concern you. Additional brochures and information are available at the Courthouse, the Operations Center, or upon request.

EFFECTS OF CONTAMINATION OF FOOD AND WATER

Initial concerns are the condition of fresh milk from dairy animals grazing on pasture and drinking from open sources of water.

Many things affect an accidents impact on the population - the amount of radiation released, the duration of the release, wind direction, weather conditions, and so forth.

Testing will be performed on the farm - testing of milk, grains, fruits, vegetables, nuts, honey, soil, etc. and decisions made as a result of those tests.

Another initial concern is the possible impact of contamination on livestock and poultry. Sampling would take place and instructions provided.



Drinking water contamination is a lesser concern. If it occurs, it probably will affect only surface water supplies and not ground wells or underground water sources. The safety of water will also be determined through sampling.

IODINE AND RADIATION

Nuclear events produce radioactive iodine, a relatively unimportant threat to people unless it is ingested in a soluble form. One such way would be a combination of radioactive iodine with sodium. Sodium combines readily with iodine and its cousin element, chlorine. We all use sodium chloride, the chemical name for common table salt. Potassium is a chemical cousin to sodium, and it likewise combines with iodine and chloride. The human thyroid gland routinely absorbs any iodine compound taken into the body. Radioactive iodine there becomes a major

DIRECTOR'S MESSAGE

As the Director of Talbot County Emergency Management Agency, I wish to reassure you that Talbot County is prepared for emergencies of all types. This agency works to protect Talbot County citizens and visitors in the event of any emergency which may face Talbot County.

During these uncertain times, it has been necessary to readdress issues that previously were thought to be extreme remote possibilities. Though still considered unlikely, Talbot County Emergency Management Personnel and Public Officials are trained and ready. We can immediately put into place plans and protective actions to ensure the safety of our citizens in the event of an accidental release or a deliberate act of terrorism, causing a release at the Calvert Cliffs Nuclear Power Plant.

It is important for you to plan as well. If you have not created an emergency plan with your family, please do so now so that your family members know what to do and where to go during any emergency.

William E. Mullikin

Director,

Talbot Co. Emergency Management Agency

WHAT ARE EMERGENCY PLANNING ZONES?

There are 2 types of Emergency Planning Zones (EPZs)

- **PLUME EXPOSURE PATHWAY**

This area is within a 10 mile radius around a nuclear power plant where direct exposure to radioactive materials are possible.

- **INGESTION EXPOSURE PATHWAY**

This is the area within a 50-mile radius around a nuclear power plant where indirect exposure to radiation is possible, caused by eating food, drinking milk, or water, etc.

**CALVERT CLIFFS NUCLEAR
POWER PLANT
IS LOCATED IN LUSBY,
MARYLAND.**

**TALBOT COUNTY IS WITHIN A
50-MILE RADIUS OF THE POWER
PLANT, PLACING
US IN THE INGESTION ZONE.**

RADIATION



Radiation and some radioactive materials are a natural part of our environment. They are in the air we breathe, in the food we eat, in the soil, in our homes, and even in our bodies.

The level of radiation which exist naturally is "background radiation".

Background radiation varies greatly from one location to another and depends on factors such as solar radiation, elevation, soil composition, presence of radon gases from the soil, and building materials.

We are also exposed to low level radiation when we have an x-ray, watch TV, or use a computer.



The effect of radiation on people depends on the amount and the duration of exposure, how much of the body is exposed, how much radiation stays in the body, and the general health and age of the person. The effects of radiation can be minimized by reducing exposure time and increasing the distance from the source of the radiation.

POST EMERGENCY ACTIONS

- If you have been evacuated from your area, you may be allowed to return temporarily as conditions permit.
- You will be advised through by the following:
 - Initial Alert - County Siren System
 - Local radio broadcast - WCEI - Easton
 - Emergency Alert System (EAS)
 - Cable Crawlers and announcements

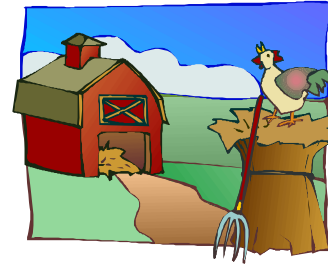


- You will be given specific instructions for routes you should or should not take and safety precautions for you and your family.



- Re-entry may be allowed to perform such vital tasks as milking, watering, and feeding farm animals.
- After the initial emergency, officials will identify the types and levels of contamination. They may need to take samples of air, water, soil, crops, animal products, etc. from your farm or business.
- Officials will provide you with information on decontaminating your animals, food, and property or advise that these actions are unnecessary.

WHAT IS OUR MAJOR CONCERN?



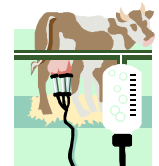
The safety of the food supply is the major concern for Ingestion Zone Counties. If radioactive materials

were released during an accident, both



the water and the land may become contaminated. Eating contaminated food and drinking contaminated milk and

water could cause long term health problems.



County & State agencies will inform the agricultural community as to what actions to take, given the

conditions at the plant, while taking into account, other important information.

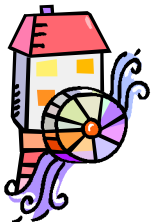
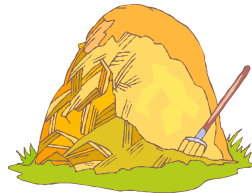


PREVENTIVE PROTECTIVE ACTIONS

These are measures taken to prevent or minimize contamination of food, water, and food products.



- Animals, especially dairy cows may have to be placed on stored feed and water.
- Grain/hay stored in a permanent bin, hay in a barn or in a covered silo is considered protected.
- A haystack in an open field can be protected with a tarp or similar covering but this must be done before a radioactive release occurs.
- Large rolled bales of hay unprotected by plastic or covers that are stored outside should not be used unless absolutely necessary. Even then, they should be used only when the outer layers have been removed and discarded.
- If no protected or stored feed is available for use during an emergency, animals can survive for a time on water alone.



- Water from a covered or deep well, tank, cistern, or freely running spring is safe for livestock. Water in an open pond could be contaminated and should be tested before it is used.

SOIL

If State officials find that the soil is contaminated, corrective soil management procedures will be implemented such as not using the land for a period of time, removal and disposal, deep plowing, and so forth. You will be informed which action is appropriate for the level of contamination present.



HONEY



Honey and bee hives will have to be tested should any contamination be present in the area. Instructions will be provided to you on how to handle hives and honey.



Remember that Talbot County Officials and the Talbot County Emergency Management Agency will be working with local, State, and Federal agencies to insure the safety of the residents of Talbot County in the event of a release from Calvert Cliffs. A release from Calvert Cliffs Nuclear Power Plant does not mean that Talbot County will be affected at all. Just as the Talbot County Emergency Management Agency prepares for all natural and man-made disasters, we have a plan in place for this type of emergency. Talbot County is in the ingestion zone. A release from Calvert Cliffs would likely have minimal impact on Talbot County depending on weather conditions at the time of the release. However, we are prepared to handle such an emergency.

POULTRY AND POULTRY PRODUCTS

Poultry raised outdoors, especially those used for egg production must be tested. Poultry raised inside houses are likely not to be affected.



FISH/AQUATIC LIFE

Fish and other aquatic life should not be eaten until test samples indicate it is safe to do so.

GRAINS

If grains are permitted to grow to maturity, most contamination will probably be removed by wind and rain. Lab test will determine if the grain is safe to use. When harvested, contaminated and non-contaminated grains should be stored separately to prevent cross contamination.



WATER

Open sources of water should be protected. Cover open rain barrels and tanks. Do not collect rainfall from the roof of a building. Covered wells and other covered sources of water will not become contaminated. Radiation deposits on the ground will travel very slowly into ground water unless it is sandy soil. It is unlikely that ground water supplies would be affected.

EMERGENCY PROTECTIVE ACTIONS

Emergency Protective Actions are measures taken to isolate or contain food that has already been contaminated and prevent the release of this food into the market.

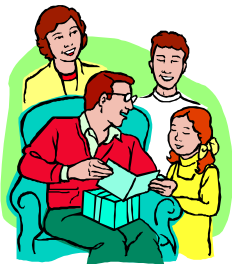
Example: To restrict or withhold agricultural and dairy products from the market by keeping them from being shipped out of affected areas.

- **When you go outside, wear clothing that covers all portions of the body. For example: coveralls, long sleeved shirt, long pants, boots, gloves, hat, etc.**
- **Wear a respirator, protective mask, or place a folded damp cloth over your mouth and nose when outside to prevent inhalation of radio active materials.**
- **Remove outer clothing before going indoors.**
- **Wash hands thoroughly before preparing or eating food.**
- **Do not do anything that will kick up dust.**

- **Delay the slaughter of animals until it is determined by health officials that it is safe to proceed.**
- **Do not use fresh milk from dairy animals, fresh garden vegetables, or eggs until told safe to do so.**
- **Do not process or distribute agricultural products until they have been sampled and you are told it is safe.**
- **Do not market or transport food out of the area until told it is safe.**
- **Fish and game should not be taken for food until determined safe by health officials.**

There will be special instructions, should there be a release at the power plant, but it is dependent on where you are located in relationship to the power plant, weather conditions, and so forth.

It is important to follow instructions. Talbot County is not in the plume zone, however; weather conditions or other factors could make it necessary to put protective actions in place in the event of a release at Calvert Cliffs.



OUR FOOD SUPPLY

EXAMPLES OF PROTECTIVE ACTIONS

MILK



Remove all dairy animals from pasture. Shelter them if possible, and provide protected feed and water. It is more important to protect the feed and water than the actual animal. State officials may come to sample the milk, feed, and water for laboratory purposes. If found to be contaminated, you may be told to with-hold your milk and milk products from the market. Special instructions will be given to you.



FRUITS AND VEGETABLES

Wash, scrub, peel, or shell locally grown fruits and vegetable to remove surface contamination. If your are told it is safe, some things could be preserved by canning, freezing, or dehydration for later use.

MEAT AND MEAT PRODUCTS



Following a radioactive release, you may be advised to put meat producing animals on stored feed and water and if possible, shelter. The contamination can be absorbed by their bodies and then will enter the human food supply.